

## PATENT ABSTRACTS OF JAPAN

(11)Publication number: 10145130 A

(43)Date of publication of application: 29.05.98

(51)Int. CI H01Q 3/26

> H01Q 25/00 H04B 1/16 H04B 1/18

Se (6, och (7

(21)Application number: 08293681

(22) Date of filing: 06.11.96

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## (54) RADIO WAVE ENVIRONMENT ADAPTIVE RADIO **RECEIVER**

(57)Abstract

PROBLEM TO BE SOLVED: To provide the radio receiver, whose circuit configuration is simpler than that of the conventional technology that conducts reception signal processing adaptive to various radio wave environments.

SOLUTION: A receiver 2 receives a plurality of reception signals received by each antenna element of an array antenna 1 and provides an output, and a multi-beam shaping circuit 4 calculates a plurality of beam electric field values based on a plurality of the reception signals outputted from the receiver 2, on a direction of each major beam in a plurality of prescribed beams predetermined and to be shaped to receive a desired wave in a prescribed radiation angle range, and on a reception frequency of the received signals. A radio wave environment discriminating device 11 discriminates a radio wave environment of a plurality of the reception signals, based on a plurality (N) of beam electric field strength values calculated by the multi-beam shaping circuit 4 and a signal processing circuit 10 executes selectively a signal processing corresponding to the discriminated radio wave

environment, with respect to a plurality of beam electric field strength values calculated by the multi-beam shaping circuit 4 to provide an output of a reception signal after the signal processing.

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